

11 hour shut down for Falconbridge



Message from the Minister:

Environment Minister William G. Newman, appointed February 26, 1974, outlines priorities for ministerial programs on page 8.

Mr. Newman came to Environment Ontario from the Ministry of Transportation and Communications where he was Parliamentary Assistant to the Minister.

He has served on a number of Parliamentary committees including the Estimates Committee, the Natural and Physical Resources Committee and the Select Committee on Hydro.

An agrologist, Mr. Newman has represented Ontario South in the Legislature since 1967.

Minister commends Ontario cottagers

Co-operation between cottagers and the Ministry in protecting our recreational waters is excellent announced William G. Newman, Minister of the Environment, at a meeting of the Federation of Ontario Cottager Associations.

A "self-help" water quality evaluation program begun by Ministry staff in 1971 has

been successful because of the high degree of public interest. "More than 60 lakes were sampled in 1972 and 125 lakes in 1973 by individual cottagers, cottagers' associations or shoreline residents," Mr. Newman told the meeting at the Lord Simcoe Hotel, Toronto.

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Falconbridge Nickel Mines Ltd. near Sudbury was shut down for 11 hours late in April in the first total shut-down of an industrial source ever ordered in Ontario under the air pollution index.

At its peak, the index, based on concentrations of sulphur dioxide and suspended particulate matter over a 24-hour period, reached 114 at the monitoring station in Happy Valley, a community near the plant, the highest ever recorded in the province.

The company was prompt in complying with the cutback and shutdown orders, said Ralph Moore, director for Environment Ontario's northeast region. "We had close co-operation from these peo-

ple. Fortunately the incident did not get to the point where they had to lay people off."

Prompt co-operation from industry is important in these situations, because the air pollution index directly concerns substances and conditions which can affect health, he said.

W. S. Gibson, manager of the regional technical support section summarized the incident:

"The index started to rise very early in the morning, April 23—we started to get our first high readings from 6 to 7 a.m.

"Bob Pearsell was duty officer at the time. He's the senior environmental officer in our North Bay office.

"We have several people

on 24-hour call, seven days a week. They take turns on call and this time it was Bob's turn."

Mr. Pearsell was active in watching the index and dealing with Falconbridge until 4 p.m. the next day—34 hours later. He was relieved by Mr. Gibson then so he could attend a meeting with officials of a pulp and paper company.

Mr. Gibson continued:

"When the index passed 32, the company was advised to prepare to cut back operations. By 9 a.m., the index was over 50 and the company was advised that a 24 per cent cutback in its operations was necessary and a curtailment order was issued.

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ENVIRONMENT ONTARIO LEGACY

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New regulations for private waste units

The Ministry of the Environment has assumed responsibility for the approval of private sewage installations, such as septic tanks, from Ontario's local health units.

Environment Minister William G. Newman announced new regulations, establishing uniform provincial standards for private sewage disposal systems, to the legislature on April 15. The Ministry will be responsible for the inspection and control of all systems in the province.

Mr. Newman emphasized that these changes would have no effect on systems already installed and operating, but would cover future installations.

IMPLEMENTATION

This approval and inspection program will be carried out in three ways. First, where possible, it will be handled by Ministry staff. Secondly, in some cases, due to shortages of trained personnel, the Ministry will enter

into agreements with local health authorities to continue this program on its behalf.

"This will be a temporary measure until the number of Ministry inspectors is sufficient to perform this service; we see the maximum length of such agreements being three years," the Minister underlined.

Thirdly, in areas where there are regional governments, the Medical Officers of Health will carry on the function until the regional government can acquire the necessary people. "It is our intention that these inspections and approvals would be handled by the regional governments concerned," Mr. Newman added.

Under the new provincial standards, a certificate of approval would be required before construction could begin on a new private sewage disposal system, or any building served by such a system. After construction, the instal-

lation would be inspected to ensure it complied with the plans originally approved and a use permit issued. Processing of an application would cost \$15 including inspection and issuance of a use permit.

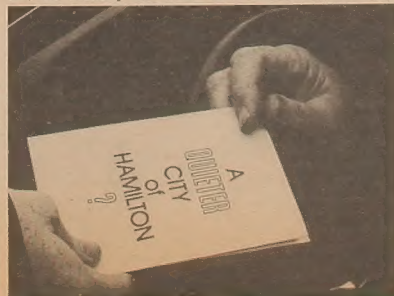
In addition, under the Environmental Protection Act, 1971, and the accompanying regulations, the Ministry will be able to evaluate the suitability of land proposed for subdivision when this land would be served by private sewage systems. The fee for this assessment and evaluation will be \$10 per lot.

CHANGE

At present, the Minister noted, "there are widely differing standards being applied across the province; but this condition will be rectified."

There are approximately 30,000 private sewage disposal systems installed each year in Ontario.

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A quiet word of caution. . .

Here a Hamilton motorist gets a brochure and a quiet word of caution in a vehicle noise testing program conducted by city police and environment staff. (See report and pictures page 4.)

Kenora wants to recycle, says survey

Thirty-five students of Lakewood secondary school in Kenora recently undertook a public opinion survey on environmental issues. Their purpose was twofold—to make the general public aware of environmental protection and to provide statistical support for recommendations to be submitted to various levels of government.

Although the survey idea was conceived by chemistry teacher, Robert Aitken, the students took an active part. Previous classroom discussions had led to a strong stu-

dent concern for public involvement in environmental protection issues.

According to Mr. Aitken, "the students had quite a sincere interest in the subject. No marks were given for participation; it was strictly an interest thing".

After designing the ten survey questions related to water, air and land pollution problems, the students interviewed 355 Kenora residents over a two-month period. To decrease the chance of a biased response, the students did not interview good friends

or neighbours.

Rural students who were unable to survey Kenora homes in the evening, conducted experiments on their lunch hours. They analyzed the detergents used by the polled housewives to determine the percentage of phosphate content, a substance contributing to excessive algae growth in local waters.

The survey results were keypunched and tabulated by the computer centre at Lakehead University. To finance the computer costs, the young people ran a scientific raffle.

"The results of the survey were quite reassuring. Particular interest was shown by the citizens in recycling and on the phosphorous problem in detergents," said Mr. Aitken.

As a follow-up, the students plan to visit the O & M paper mill in Kenora to discuss the paper recycling issue with plant personnel and to tour the plant.

The 10 questions included in the survey were:

Do you feel government is controlling industrial pollution adequately?—20 per cent yes, 80 per cent no.

Do you feel environmental protection should be a political issue?—71 per cent yes, 29 per cent no.

Do you feel the news media convey our pollution problems efficiently?—47 per cent yes, 53 per cent no.

Do you feel our town has sufficient litter receptacles?—32 per cent yes, 68 per cent no.

Would you consider separating clean paper for recycling,

from your trash?—69 per cent yes, 31 per cent no.

Are you reducing fuel consumption in your home and automobile to meet with the energy crisis? 45 per cent yes, 55 per cent no.

Would you utilize a public transport system, if service increased?—60 per cent yes, 40 per cent no.

Would you repair your automobile to meet emission control standards?—64 per cent yes, 36 per cent no.

Would you consider paying an additional \$2.70 per year for improved sewage treatment that is tertiary treatment?—77 per cent yes, 23 per cent no.

Would you switch to a low phosphate detergent if your present detergent contained excessive phosphate?—89 per cent yes, 11 per cent no.

Fifty-two per cent of those interviewed were female, forty-eight per cent male. They represented a good cross-section of age and income.

Fund raising by the book

The increasing shortage of paper in Ontario has made the collection of paper, newsprint and cardboard—a profitable venture.

Members of the Salvation Army in Toronto, in co-operation with the Bell Telephone Company have embarked on a campaign to collect telephone directories. Their aim is to collect 150 tons of books before the campaign ends.

Similar successful projects in Montreal and Minneapolis were the impetus for the Toronto program. Bell Telephone rents the trucks and trailers and provides the advertising. The Salvation Army furnishes the manpower and the gasoline.

During a week-long advertising campaign, citizens were asked to drop their directories into the clearly marked Salvation Army bins. Every other day the books are collected to be sold for use in the production of recycled paper and secondary paper products used in the manufacture of shingles, roofing materials, egg cartons and shoe boxes.

The current price for directories is about half as much as that paid for newspapers. All money received will go to help the Salvation Army with its community work. The total number of directories in the Metro area equals approximately 3,200 tons so the Boy Scouts and other organizations which use paper collections for fund raising are not faced with direct competition.



Environment Ontario's Gil Brooks is bogged down in paper for a good cause—collecting the Ministry's old telephone books for the Salvation Army.

Frogs not litterbugs

These are a few oddities of nature, common to amphibians, related by Barbara Froom of the Ontario Ministry of Natural Resources, the author of the ministry booklets "Ontario Snakes" and "Ontario Turtles". She also wrote "The Snakes of Canada" published by McClelland and Stewart.

Although amphibians have been around for a long, long time—an estimated 340,000,000 years or so, their ex-

istence is threatened by the loss of marshy areas, by pesticides, and general pollution. Water pollution could be a serious problem for them because water is absorbed through their skin.

They are economically beneficial because of the great numbers of insects they devour but, unfortunately some are already a rare and vanishing species in Canada.

Frogs must be against pol-

lution. Instead of leaving their shed skin lying about, they swallow it.

Then, take salamanders. If a salamander (it looks something like a lizard) loses a limb or its tail it will grow a new one; the same goes for gills. These parts will also regrow on frogs and toads but only when they're tadpoles. Adult frogs and toads aren't as lucky; only their fingers and toes will grow back.

Rotary sponsors student conference

High school students numbering 750 and representing 116 colleges from across Ontario took an active part on April 3 in an environmental conference, at East York college in Toronto.

Willis Blair, the Mayor of East York welcomed the students who were from as far away as Nanapanee, London and Bracebridge. The morning session of the conference was taken up with presentations considering all aspects of the environment, from the energy crisis and population growth to food production.

Chris Taylor, a professor of interdisciplinary studies at the University of Toronto spoke on Energy and Population Growth. He attempted to bring home to the audience, that Canada, because of its uninhabitable north and expanses of water was not the underpopulated nation it's represented to be and should not be considered an area that can absorb the world's excess people.

The Energy Crisis, Facts and Fallacies, was the subject of Dr. Gordon Patterson, also from the University of Toronto. As a member of the Science Council of Canada, Dr. Patterson related a startling statistic, 48 per cent of the potential of the world's energy is wasted. He added that although there is no short-range energy problem in Canada, there will be a long-range shortage, and nuclear energy as we know it today is not the answer.

"The most important source of energy is the cafeteria down the hall" began Dr. Stoskopf, a professor of Crop Sciences at the University of Guelph. Proceeding to draw parallels between the

use of energy and food production, he explained that a gasoline shortage has much more far-reaching consequences than personal inconvenience. "An acre of corn requires an average of 80 gallons of gasoline for its planting, up-keep and harvesting."

Merrill Cathcart, assistant to the deputy minister of the environment held the students' attention as he presented a much more optimistic view of Ontario's environmental future. He explained that, as in the past, his Ministry would continue to exercise its power to restrict the emissions of pollutant material into the Ontario environment. Mr. Cathcart added that in recent years, the conditions in Ontario had become increasingly better.

After the presentations the audience took a lunch break, and split into discussion groups.

The conference was sponsored by District 707 of the Rotary Club, the purpose being to introduce students to new ideas and facts concerning the environment. The students interviewed felt the conference had been successful. Pertinent discussion between urban and rural factions provided an enlightening exchange of ideas.

RECORD PICKUP

The Borough of Etobicoke collected its largest single pickup of paper in April—111 tons in one week.

The paper is sold for recycling at a cost of \$45 a ton. For that alone the borough received nearly \$5,000.

The borough began paper collection on a regular basis last January.

Two year conference ends

"The Man and Resources Conference is a meaningful experience to the government of Ontario and we hope the delegates here feel the same way," Allan Grossman, Provincial Secretary for Resources Development told delegates to the final meeting of the Ontario division of the Man and Resources program.

Man and Resources was designed to give the Canadian people a voice in the formulation of environmental and resource policy. The Ontario wrap-up session on March 30th was to discuss the action taken and to be taken by the provincial government to the recommendations and guidelines which resulted from the project.

Every group in Ontario which submitted a report at some stage of the program was invited to send a representative to the Toronto meeting.

Before the session, each of the 111 representatives received a written response to the guidelines from every affected government ministry. To further clarify their ministries' position, the following ministers were present: William Newman (Environment), Leo Bernier (Natural Resources), William Stewart (Agriculture and Food), John Rhodes (Transportation and Communications), Jack McInnis (Minister Without Portfolio, formerly Minister of Colleges and Universities).

and Allan Grossman.

The delegates, divided into four groups, spent the first two hours deciding which points they wished to discuss with the Ministers. The Ministers then visited the groups and answered any questions.

ISSUES

An environmental bill of rights, enabling a citizen to take a polluter to court, was one of the more popular issues. Mr. Newman expressed doubts about citizen actions in the courts and suggested that court action might not be the only alternative. "A judge must rule on a point of law and with all due respect to the judiciary, they do not always have environmental expertise. A board of people (such as the Environmental Hearing Board) with strong involvement in the environment would be of more use to the citizen."

William Stewart, Minister of Agriculture was questioned on the value of organic farming. "Being a man of significant vintage," he said, "I remember when organic farming was practiced. We have nothing against organic farming but we wonder if the people of Ontario are prepared to pay 20 or 40 or even 100 per cent more for their food, if they could even find it. There are people in underdeveloped countries, who are practicing organic farming but they are existing on starvation diets."

All of the ministers strongly

favoured public participation in planning stages. Mr. Newman pointed out that his Ministry's Green Paper on Environmental Assessment, which was an invitation to the public to participate and enter a debate on a particular environmental area, is indicative of the trend toward more citizen involvement. Leo Bernier agreed wholeheartedly with the importance of this issue but wondered "how do we go about getting information to and from the citizens."

Although a few delegates still expressed doubts as to whether government officials would heed the proposals, the majority felt the day and the Man and the Resources program was a success. In fact, at the plenary session one of the delegates put forth a recommendation which was loudly applauded. "Man and Resources has built up considerable dialogue with the government which should not dissolve. It should be continued in the same form to enable further communication between government and members of the public."

According to Bob Keir, a member of the Ontario planning committee, "there are no plans for further continuation of the Man and Resources conferences as such but the Ministers are very impressed with the program and apparently thought is being given to a similar form of communication for Ontario."

THE PROGRAM

The Man and Resources program was sponsored by the Canadian Council of Resource and Environment Ministers, a committee composed of a resource or environment minister from each of the ten provinces and a federal minister.

It started about two years ago through local meetings across Canada. The public was asked to identify environmental problems which immediately affected it. Regional and provincial meetings raised the concerns to a more general level.

It is estimated that over 15,000 Canadians of various ages, occupations and beliefs were actively involved in the total Man and Resources program.



Karl Klauck has expanded his worm farm to increase this year's production of potting soil.

Worm farm man breaks new ground

One of Ontario's most unusual recycling projects is no longer going to be selling its main product because the product is too valuable to lose.

Karl Klauck of Holland Landing near Newmarket, started last year collecting food wastes from supermarkets, sewage sludge and other waste products and using this to raise worms to sell as fishing bait.

He had a healthy market for his red worms among fishing camps in northern Ontario, but the thing that intrigued him was the byproduct of his earthworm production line—worm droppings. The worms left behind them a high-quality fertilized soil, so high in quality that it had to be diluted with sand or peat to make it usable.

This summer, he told friends and government officials touring his new, expanded worm farm, his primary product is potting soil. The worms, working in 100 steel drums indoors and in trenches in the ground out-of-doors, are too valuable as soil producers for him to sell.

Mr. Klauck works at a Markham packaging plant, but he is considering devoting all his time to his new venture. Last year's bait has left him with about 10,000 cartons of potting soil and he is anticipating this year's production to rise to a potential 30 to 50 tons a week.

"I have to get out of the bait business," he said. "Charles Darwin was right when he said that without earthworms we would have no tillable soil."

New Water Resources director

Grant H. Mills, 37, has been appointed director of the water resources branch for the Ontario Ministry of the Environment. Deputy Minister Everett Biggs announced recently.

The supervisor of the design approvals section, he replaces John Neil, who is leaving the Ministry to set up his own research firm.

A graduate in civil engineering from University of Toronto, Mr. Mills worked in Hamilton's city engineer's office from 1959 to 1960 before joining the surface water branch of the Ontario Water Resources Commission.



His new post, the water resources branch, is responsible for establishing overall water quality and quantity standards for Ontario.

Mr. Mills lives with his wife and two children on Strathy Ave. in Mississauga.

Ministry and cottagers work together on Ontario lakes

(Continued from page 1)

The study involves the collection of information on water clarity and abundance of algae. If continued on a long-term basis, the study is expected to be extremely useful in assessing whether changes in water quality are occurring so that corrective measures can be taken before conditions become critical, he said.

In another program, Ministry staff have visited more than 15,000 cottages and vacation homes on 39 lakes since 1970 and evaluated the waste disposal systems. Those found to be unsatisfac-

tory were brought to the attention of the cottage owners and the necessary repairs insisted upon.

Mr. Newman outlined two programs designed to restore lakes to full recreational use which are still in the research and experimental stage. These are the aquatic weed cropping experiment at Chemong Lake in the Kawartha and the lake restoration program near Sudbury.

"The weed cropping experiment was started because a combination of natural and artificially induced plant growth had put limits on the water use," explained Mr. Newman.

Since the amount of chemicals required to get rid of the weeds would have altered the ecological balance in the water, the solution was to remove the weeds mechanically. The cropping had to be planned in such a way so as not to interfere with the small fish which depend on weeds for cover.

A team of biologists, chemists, wild-life specialists and engineers working for the Ministries of the Environment and Natural Resources tackled the problems. "The cottagers of Chemong lake are more than pleased with the results," he said.

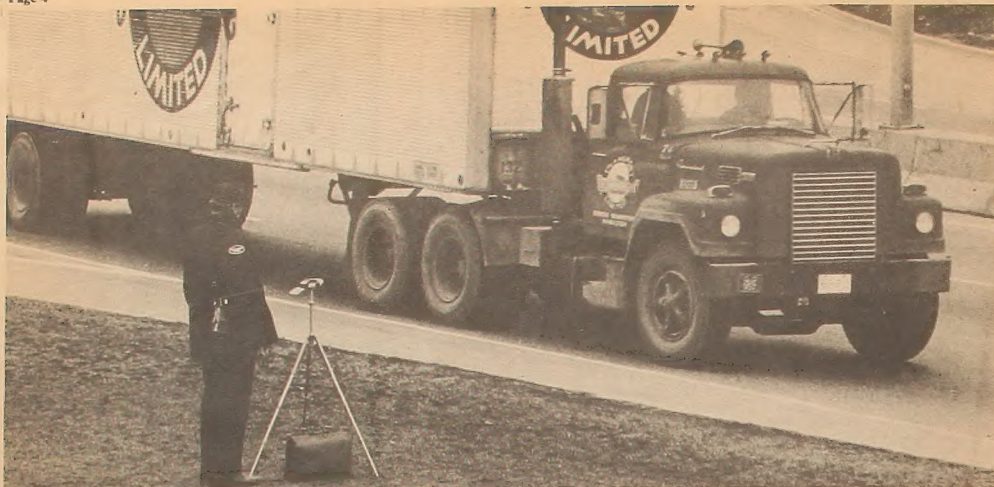
The second experimental

program was concerned with the acidity of lakes in Sudbury. When airborne sulphur dioxide, a major air quality problem in the Sudbury area, is mixed with water particles, a very mild acid is formed. As this acidic solution fell into the lakes as rain or snow, there was a gradual increase in the acidity of the water. Scientists believed this may be the explanation for diminishing numbers of certain types of fish.

The solution was to add a neutralizing agent to the lakes, in this case lime, to reduce the acid levels. "The 'Giant Tums' method worked," said Mr. Newman.

"Future experiments should provide even better ways of using this technique to restore lakes that have acid problems."

Mr. Newman also discussed Ministry involvement in other areas of cottage concerns. A study into a number of sewage treatment systems which may solve the problems of conventional septic tank systems was of particular note. In addition, he said, the new regulations governing septic tank installations will guarantee uniformity of installation and inspection across the province, thus assuring increased total environmental protection.



An Environment Ontario inspector monitors the noise meter as a heavy truck rolls past the test area.

Noise tests under way in Hamilton

A program is now underway in Hamilton to test the effectiveness of a proposed Ontario regulation on vehicle noise control.

The city, in co-operation with the Ministry of the Environment, began the program in March. "A dual purpose will be served by this program," said John Sutherns, head of the Ministry's noise pollution control section. "It will make drivers aware of noise problems and allow the Ministry to check

the proposed regulation."

The regulation will specify different vehicle categories and the maximum noise levels permitted for each category under various operating conditions. For example, vehicles falling into category "A" (passenger cars, station wagons, vans, trucks or buses weighing under 8,000 pounds) are permitted to produce up to 74 decibels at speeds of 30 miles per hour and up to 77 decibels at speeds between 30 and 40

m.p.h., if the grade is less than two per cent and if the vehicle is more than 600 feet from stop lights and signs. A level of 83 decibels is permitted at all other speeds and grades.

At present, there are five proposed categories for vehicles, including one for motorcycles.

NOISE METERS

In Hamilton, the vehicle noise levels are checked in two ways. A microphone situated on Woodward Avenue across from the Hamilton municipal laboratory responds to the noise from passing cars and displays a reading, by lights on a sign 100 feet further down the road. Signs explain the maximum noise levels of the different vehicle classes.

According to Roger Howe, Environment's regional noise inspector, "the motorists are enjoying the meter. Some make U-turns and drive by several times, honk-

ing their horns, accelerating, braking and just generally trying to raise or lower their reading."

An amusing sight is the driver who tries for a high reading but accelerates at the sign board instead of at the microphone. He often goes away shaking his head unable to figure out why the reading wasn't higher.

The second phase of the program involves the Hamilton police. A Ministry noise inspector sets up a sound level meter 25 feet from the centre of an approaching lane of traffic. If an oncoming vehicle exceeds the proposed standards he radios ahead to a second inspector who is accompanied by a policeman. The officer waves the car down and introduces the inspector. The program is explained to the motorist and he is requested to reduce his contribution to the community noise.

On one occasion an excit-

ed motorist, spying the device up ahead, began to pound on his horn. Naturally, he was pulled to the side of the road. "I thought you were trying to collect traffic noise," he apologized. Unfortunately, his wife in the back seat didn't feel that horn blowing could be excessive. She became quite vocal about the right to use one's horn, until the police officer briefed her husband in no uncertain terms as to the value of having the woman restrain herself.

The spotchecks are made at a number of unannounced locations throughout the city and are usually dependent upon the weather. "We don't monitor in the rain," said Mr. Howe, "because the extra noise generated by tires on wet pavement gives a higher reading. Nor does the microphone record accurately if the wind is above 20 miles per hour."

ATV report tabled

An Ontario legislature committee has proposed that snowmobiles, dune buggies, mini-bikes, hovercraft and other all-terrain vehicles be banned from highways and wilderness, wildlife or scenic recreational areas.

The eleven-man Select Committee on Motorized

Snow and All-Terrain Vehicles tabled its final report to the legislature recently, saying that the restrictions are necessary to protect the public, the users of the machines, private property and the environment.

The committee proposed a total road ban on snowmobiles to begin July 1, a year earlier than planned, because of the increased deaths last winter on snowmobiles using highways. The Ontario government is now considering the report.

The committee made several other recommendations:

All-terrain vehicles should be registered, issued with specially-coloured licence plates and be insured.

An ordinary driver's licence should be required to operate them, but special competency tests could be given to persons 14 or older.

Regulations should be devised to designate areas where off-road vehicles should be banned such as, wilderness, wildlife, camp, picnic and recreational areas, hazardous spots and areas with erosion problems.

The written permission of an owner should be required to operate off-road vehicles on private property.

Relying on health unit expertise

(continued from page 1)

"Both the Ministry of the Environment and the health units are currently responsible for various aspects of approval, maintenance and upgrading of private sewage disposal facilities. As of April 15, these duties will be supervised by one agency, part of the consolidation of environmental protection services under one roof that began with the formation of the Ministry of the Environment two years ago," said Mr. Newman.

"The health units have performed admirably in these inspections and approvals in the past and we will be drawing on their experience and expertise in the initial change-over period," he concluded.

21st waste conference

Dr. E. G. Pleva, professor of geography at London's University of Western Ontario will be the keynote speaker at Environment Ontario's 21st annual Industrial Waste Conference in June at Toronto's Skyline Hotel.

Dr. Pleva will kick off the conference with a speech on land use planning, its relationship to environmental controls and comments regarding the quality of life.

The three-day conference, from June 24-26, will be broken down into five technical sessions with close to 15 papers being presented to the delegates. Other subjects under discussion this year include, industrial water pol-

lution, industrial air pollution and solid waste management.

According to Dennis Caplice, chairman of conference technical programs, one of the direct results of last year's sessions was the production of the Green Paper on Environmental Assessment.

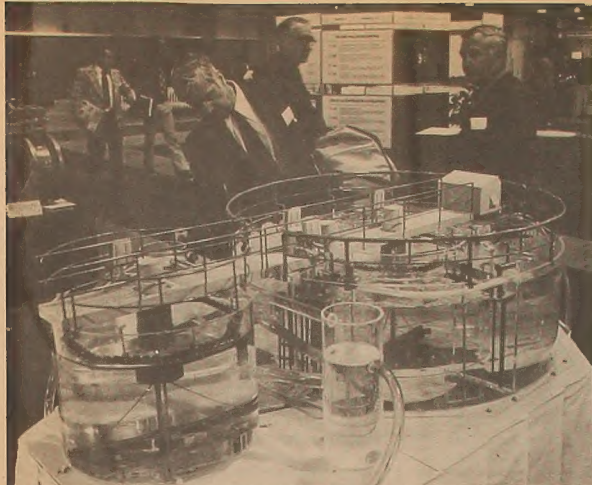
"Since then there has been feedback on it, from better than 150 individual sources," said Mr. Caplice, director of the Ministry of the Environment's environmental approvals branch.

In 1973 more than 350 delegates attended to hear presentations and discussions by representatives of industry, government and education. Included in the list of delegates, were representatives from Manitoba, Alberta,

Quebec and the Maritimes and the host province, Ontario.

Mr. Caplice noted that the conference gains a better reception each year and as a result those people involved have moved further down the road in terms of environmental assessment. It is considered to be the leading industrial conference in Canada.

This year's conference will be in the International Room at the Skyline Hotel, 655 Dixon Road, Toronto from Sunday, June 23 to Wednesday, June 26. Timetable for sessions is, Monday 10:00 a.m. to 5:00 p.m.; Tuesday 9:00 a.m. to 5:00 p.m. and Wednesday 9:00 a.m. to 12:00 noon.



Pollution control on parade

A shower of sparks as a welder demonstrates a collector system for fumes and gases, a closer look at a transparent model of a treatment system, a speaker at the lectern and people meeting people—these are some of the highlights on the Pollution Control Association of Ontario convention and the Pollution Control Show.

The convention at the Royal York Hotel and the show in the automotive building at the CNE presented the specialists' viewpoint and the technical aspects of a wide range of pollution control and environmental matters.



Public speaks on Thames River basin's future

There are over 400,000 people living in southwestern Ontario's Thames River watershed. If you have important information to impart to them, how do you do it?

A 12-page tabloid newspaper was devised to present the findings of the Thames River Basin Study to the general public. This semi-technical interim report presenting a joint study conducted by the Ministries of Environment and Natural Resources, is of vital interest as the information would affect most of the population living in this 2,200 square mile area. Thus, approximately 24,000 copies of the Thames River Basin Study Bulletin were distributed via 12 weekly newspapers and another 4,000 copies were sent to municipal and provincial governmental offices.

BACKGROUND

The Thames has been plagued with problems for many years. Since the mid-1930s, the Thames and its tributaries have seen flooding, water shortages, water quality impairment and erosion difficulties.

Severe flooding has been documented over the years in nearly all branches of the Thames. The Upper and Lower Thames Conservation Authorities were established

to develop flood control programs. By the early 1950s, flood control was being tackled by a program to include the construction of a series of dams and reservoirs throughout the watershed.

Meanwhile, urban growth in the basin continued, with a reliance being placed on surface and groundwaters of the watershed for municipal water supplies. It soon became necessary to import water from outside the basin by several pipelines.

A SHIFT

Once the pipeline systems to the major urban areas were established, towns and cities shifted the emphasis to reducing the pollution load that their sewage treatment plants imposed on the river system.

In several reaches of the river, water uses, including recreational and water supply have been significantly curtailed as a result of the degradation of the river water quality. It became apparent that the continued growth of municipalities would add to the existing pollution pressure.

Erosion has been caused by two factors. The record high water levels in the Great Lakes System have accelerated the rate of erosion at several points along the dykes of the lower reaches of the

Thames. Also, wakes generated by powerboats downstream from Chatham further aggravate the erosion problem.

The conservation authorities and local and provincial governments all dealt with various aspects of the problem.

THE STUDY

In early 1972, the Ministries of the Environment and Natural Resources launched a detailed two year study of the Thames River. This study has investigated problems of pollution control, low flow augmentation, flood control, control of algae and aquatic weeds and the prediction of the effect of future land use and urban development in the Thames basin.

An inventory of existing quality and quantity of water in the river system was developed. This information plus data defining the waste effluent discharges from municipal, industrial and other sources have been integrated using simulation modelling techniques. Reliable predictions of future stream conditions can now be undertaken.

Parallel to this work, flood routing models have been under development. The retention of excess spring streamflow for summer flow augmentation has been investigated.

tigated.

At the same time that this technical work was proceeding, a program was underway to obtain information from the public regarding their preferences for the management of their water resources. Municipal and special interest groups in the watershed were approached directly by the study team. Twenty-eight municipalities and 24 interest groups and related agencies attended meetings with the study team.

Others including the general public submitted their views through questionnaires. This public consultation has provided an insight into the citizen's dependency on the river.

THE CONFLICTS

The Thames River Basin Study has identified some of the problems and the solutions. It also has brought a number of potential conflicts to light. However, prior to recommending a solution to these problems, the Ontario Environmental Hearing Board conducted a series of meetings at Chatham, Glenora, London, Stratford, and Woodstock in early May to hear the public viewpoint on such questions as:

1. What factors should be considered in evaluating the cost-benefits of proposed dams?

2. What should be considered in establishing revised operating policies for existing reservoirs?

3. How much loss of agricultural productivity due to wildlife would accompany vegetative stabilization of dykes?

4. What form of protection works should be used on the various sections of dykes?

5. Can agricultural drainage schemes and municipal channel improvements be modified to facilitate retarding of runoff until after critical flood peaks have passed downstream?

6. What option should the major municipalities have in the future regarding population growth and waste treatment alternatives and environmental quality?

7. What are the implications of pasturing livestock without free access to the river?

8. Can streambank areas be switched from pasture to forage crops?

9. Can rates of fertilizer application be reduced?

By mid-summer, the conclusions and recommendations of the study will be finalized. Firm recommendations as to the courses of action open for future management of the water resources of the basin will be available for implementation.

A full hearing is the board's watchword

Ontario's Environmental Hearing Board must stand apart from the provincial Ministry of the Environment to do its job.

While it reports to Environment Minister William Newman and files its hearing reports either to him or to the appropriate senior staff at the Ministry, the board makes a point of independence as a hearing agency.

It was established April 5, 1972, by an Order In Council, and charged with the responsibility of holding public hearings throughout the province on the advisability of municipal sewage treatment plants and industrial waste treatment facilities being constructed in certain areas or on orders pertaining to areas of public water service and areas of public sewage service. The scope of this responsibility has been enlarged to include other hearing functions.

These include hearings with regard to waste disposal sites and systems and bylaws of municipalities where they concern proposed waste disposal sites.

In addition to the responsibilities specified under the Environmental Protection Act and the Ontario Water Resources Act, the board also is authorized to conduct hear-

ings on other environmental oriented matters.

Chairman D. S. Caverly has been deeply involved in environmental work in this province from its very beginnings. When the Ontario Department of Health had the responsibility for sewage works and found it necessary to hold hearings, the first hearing officer appointed was Mr. Caverly, then with Health's sanitary engineering division.

In 1957, when the Ontario Water Resources Commission was formed, Mr. Caverly was transferred to that agency, of which he became general manager. When the OWRC was incorporated into the Ministry of the Environment, Mr. Caverly served as assistant deputy minister in charge of water management.

Vice chairman of the board is D. A. Moodie, from Richmond. His background is in agriculture and in municipal government. He has served 20 years as Reeve, County Warden and as a member of regional government.

H. E. Brown, F.C.A., Toronto, a partner in a firm of chartered accountants, is a former deputy provincial treasurer.

Dr. C. A. Martin, Milton, a medical doctor, was twice

Warden of Halton County and has been active for 30 years in municipal and conservation authority programs and as a businessman and farmer.

When the board was established, J. H. Root was named chairman. The MPP for Wellington-Dufferin, Mr. Root remained as a board member after Mr. Caverly was appointed as the board's first full-time chairman. In addition to his 22 years of legislative experience, Mr. Root brings to the board his background in agriculture and farm marketing.

L. E. Venchiarutti, Toronto, is an architect and planner and heads his own firm. Over the past 15 years, he has served on various municipal and service institutions in the Toronto area.

The most recent appointees to the board are David Morton of Brockville and Mrs. Eleanor Lancaster of St. Catharines.

Mr. Morton has been involved in service activities, as a Brockville industrial commissioner and on the Ministry of Industry and Tourism's exploration team to study service industries.

Mrs. Lancaster, an economics graduate, has been a

teacher and served as a member of the consumer's committee of the Ontario Food Council.

The variety of backgrounds and differing geographical ties give the board a broad base in understanding the various aspects involved in the issues heard by members.

The board operates from separate office facilities with its own administration structure under the direction of executive director Fred Voegel.

While board members run an orderly hearing, they prefer to avoid the rigid formality of a court that might handicap the individual who is not represented by legal counsel.

"We want to give a fair hearing to the various interests in an application," said Mr. Caverly. "In one hearing, for example, I was impressed by a woman's problems with heavy trucks running down her street and disturbing her."

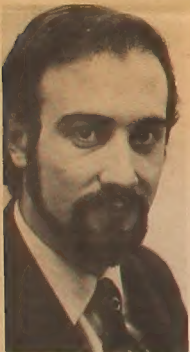
In addition to conducting a full hearing, the board is conscientious about giving a full report. For example, after a series of hearings in the Port Hope area concerning the CP rail haul proposal for Metro garbage, the board recommended limited approval of the application and suggested a further application with new information be submitted

within 10 years if more of the site was required. The report also noted that Metro should outline its waste policies, emphasizing reclamation, in a public hearing within five years.

"We were concerned by testimony that Metro might have tunnel vision with regard to landfill," Mr. Caverly said. The board's note was added to draw some indication from Metropolitan Toronto that alternative methods of waste treatment were being considered fully.

The Board reached a milestone in April with its first international hearing. The Environmental Hearing Board and Michigan's Air Pollution Control Commission conducted joint public hearings in Windsor and in Port Huron, Michigan seeking public comment on the co-operative air pollution control program worked out by Ontario, Michigan and Wayne County, Michigan.

Transboundary co-operation over the past few years has contributed to some reduction of major types of air pollution both in the Detroit-Windsor area and in the Sarnia-Port Huron area. More significant improvements to air quality are expected when major control programs take effect in 1975.



PETER A. VICTOR

New approach to analyzing pollution

Peter A. Victor, senior economist with the Ministry of the Environment has recently finished a book entitled *Pollution: Economy and Environment*.

The book, published by the University of Toronto Press, suggests a new approach to the traditional methods of analyzing the problem of pollution and natural resource depletion.

Dr. Victor, a former lecturer at the University of Kent in England, treats the environment itself as a set of "industries" that supply raw materials to ordinary industries and receives waste prod-

ucts from them. Thus, industrial activity is linked to the environment. As the demand for a given product changes, one can trace the effect of this change on pollution levels and resource depletion through the economy in the same manner as one can trace the effects on the output of ordinary producers, final consumption and employment.

The book includes: an estimate of the total use of water and output of waste products attributable to Canadian economic activity in 1961 (the year to which the Canadian input-output table applies), an estimate of the

impact of a dollar's change in the output of broadly defined commodity groups on the use of water and the production of wastes and an estimate of the environmental effects of a substantial shift from the passenger car to public transport.

These results are to be regarded strictly as illustrations because of the limited amount of dependable data available on waste flows and water use. Coherent national statistical coverage on material flows is simply not available.

According to M. L. Kliman, a member of the eco-

nomic department of McMaster University, "Dr. Victor has been ingenious in manufacturing rough estimates of these flows from secondary sources, but they are rough, and his over-all results are influenced by this dependence on informed guesswork."

At present, Dr. Victor is applying the methods from the book to Ontario's economy and environment. The preliminary results, which will take into account changes in economic growth, industrial locations, technology and pollution control, are expected within the next few weeks.

Chemical 'band aids' no answer

"Using chemicals to rid your lakes of weeds is like putting a band aid on a brain tumour. It's not solving anything," says Ivy Wile, Ministry of the Environment biologist.

Chemically-destroyed plants remain in the water where they decompose to release stored nutrients which encourage new plant growth. "Kill them (the plants) off and they recycle. Kill them off again and they still recycle," explains Mrs. Wile. Chemicals, then, provide only temporary relief for a season, six weeks or for how ever long they last.

As an alternative and perhaps slightly better solution, Mrs. Wile recommends

mechanical control. This measure consists of cutting the plants and collecting the cuttings with either an aquatic harvester or later, in a secondary operation. Removal of the cuttings is essential to avoid nuisances caused by large quantities of drifting and decomposing plants.

It is possible that areas which do not lend themselves to large scale harvesting can be raked. In fact, cottagers may find that raking their waterfront is the easiest way to rid their swimming and boating areas of excessive weeds.

Besides giving immediate relief from prolific weed growth, mechanical control actually removes nutrient

materials from the lake. "It is not going to make an overnight impact but you are taking out the nutrients so, in a way, you are in a reclaiming situation," says Mrs. Wile. In addition, mechanical removal, if carried out properly, will not alter the plant and animal life balances as drastically as chemical treatments and may in fact enhance the fisheries of a lake.

However, if in the interests of cost and labour, a cottager does decide to employ the chemical methods of weed control he must secure a permit from the Ministry of the Environment. Anyone who applies a substance to his weeds without a permit or who violates the terms of the

permit is liable to a fine of up to \$500 if convicted.

"On a very small basis such as a small area in front of a cottage, chemicals are not particularly damaging because we have assessed their toxic aspects and are recommending dosages that we feel are safe," says Mrs. Wile. "We don't allow people to dump just anywhere. We discuss every application with the Ministry of Natural Resources to ensure that the area to be treated is not a valuable habitat such as a spawning ground."

Even more consideration is given when permission is requested to use chemicals on a large scale. When the vegetation decomposes, an oxygen

depletion could kill the fish and destroy their habitats and the fish food organisms. On a large scale, chemical control would be recommended only under very carefully controlled conditions.

According to Mrs. Wile, "the ultimate solution to excessive weed growth lies in overall planning—better control over fertilizer input from farmers and from people with beautiful front lawns right on the lakes that are fertilized and better control over septic tanks and other potential sources of nutrients... An input of nutrients from rain water and from ordinary land run off from forested areas would still occur."

No junk in this wrecker's yard

"An auto wrecker should not be running a junkyard. He should be running a business."

That's the philosophy that led Ron Zwarych, of Thorold the first auto, reclamation operator to be certified under Environment Ontario's derelict motor vehicles regulations, to develop one of North America's two most beautiful wrecking yards.

He shares the honor with a U.S. operator who specializes in foreign cars.

The plaque proclaiming this distinction was awarded by the National Auto and Truck Wreckers' Association at its North American convention. The award hangs in a prominent place on the paneled walls of the yard's main office, directly below a painting of Ron Zwarych's father, the founder of the business.

Mr. Zwarych started in Thorold, with a converted filling station on five and a half acres close by the Welland Canal on Beavertams Rd., in 1946. The operation grew in the mold of the traditional wrecker's facility.

His son Ron took charge of the operation in 1967, bringing in his younger brother Alex.

EFFICIENT OPERATION

Their goal was efficient operation, and they quickly discovered that neatness counts. It wasn't the sort of changeover that could be made overnight.

"It takes money and ambition," Ron Zwarych said as he strolled along the neat rows of stripped car bodies. It also called for a complete change in thinking on the part of the people working in the business.

"The prime concept is to dismantle, clean and store the parts immediately," he said. "When a wreck arrives at the gate, it is inventoried, brought inside and stripped. I try never to leave anything outside the gates overnight."

A card file in the office provides reference for every part available in the operation. The file is the hub of the office

the first thing a customer sees when he enters. "An attractive office is important," he said. "We get a lot of women buying parts during the day while their husbands are at work."

The office chairs, including the two in the customer waiting area, are attractive and comfortable—made from bucket seats pulled out of late model wrecks.

Passing through the office, a visitor enters a clean, bright warehouse, where generators, starters, seats, and even complete engines are stored on racks and identified for quick retrieval.

Out in the yard, other racks hold complete front end assemblies, and fenders, doors and bodies are carefully filed in separate areas. The bodies with panels and parts still stripable are blocked up in rows according to make and model.

When a wreck is stripped completely, it is set aside to be taken to a steel reclamation plant.

"They go out with upholstery and other materials still in them," he said. "We can't burn them out here because of the air pollution it would cause. They can be shredded and separated at the steel plant."

He commented that scrap steel is commanding good prices at the moment.

Looking around the property, he said that he has still more improvements in mind. "It takes time and effort and it doesn't come overnight. I don't claim credit for all the ideas that have gone into this. I've picked up quite a few from various seminars run by the National Auto and Truck Wreckers' Association. The Association is very concerned about getting new ideas for better operation across to the people in the industry."

"My father had a lot of these ideas when he started this place as a junk yard," he said. "He had a bin for door latches and a bin for glass and so on, but, you know, I think he was just so far ahead of his time that it did not work."

liam Newman.

In 1969, the company was served with a Minister's Order to control fluoride; however, the technology to do this in glass-melting operations did not exist at the time.

"Fibreglas Canada first installed a system of wet scrubbers to wash fluoride out of the exhaust stream. This led to another difficulty; water coming out of the scrubbers was so contaminated that it could only be disposed in deep wells in the Sarnia area, and, in addition, significant emissions of boron were discovered," the Minister



Ron Zwarych, owner of one of North America's most beautiful wrecking yards stands beside wrecked autos. His system involves storing all bodies with stripable parts in rows according to make and model.

Company acted quickly

(continued from page 1)

"Because the levels in the Sudbury area are directly connected to the sulphur dioxide level, it is imperative that we get that level down as much as possible and as soon as possible." In centres like Toronto and Hamilton, suspended particulate matter has more significance in the index, he explained.

"When we advised the company, it immediately took steps to curtail operations because of the high levels coming in. By 9 a.m. when the official order was issued, the company had already taken steps to shut down some of its equipment so that 25 per cent of the sulphur dioxide generators which are directly tied to production were cut off."

"By noon, the index had risen to 75 and the second curtailment order was issued to cut operations up to 50 per cent. The company complied—no problem. There hasn't

been any problems."

"At 3 p.m., or during that hour, the index was 98. The company was ordered to cut back 75 per cent of production. Bob contacted the company on all these occasions," he said.

"At 5 p.m., the index had risen to 108 and the company was advised, after consultation with the Minister (William G. Newman) and the deputy minister (Everett Biggs), that it would have to shut down all operations—100 per cent cutback."

"They complied with this. From 5 p.m. to 8 p.m. the index went from 108 to 114. The reason is that it is not a simple matter of just flicking a switch suddenly and automatically shutting everything off. It takes time to take these furnaces, converters and other machines off line and so they continue to operate somewhat during the next couple of hours so that at 8 p.m., the index peaked at 114."

"They stayed off until 4:40 or 5:00 a.m. April 24. The index at that point was still 112, but wind direction had changed and velocity had decreased indicating favorable conditions to allow the company to start up 25 per cent of their production. They were still 75 per cent down."

"Bob checked with them between times to see what equipment they shut down and see that it would do the job."

"I understand there were no layoffs. When the equipment is down, they use the time for maintenance and so on."

"They don't like doing this and they want to get back on

as soon as they can. We've had no problems with Falconbridge Nickel on API incidents in the past and they certainly cooperated with this one."

As conditions improved, he said, more production resumed. "By 8 a.m. the index in Happy Valley was below 100."

The company was permitted to resume production as the index continued to drop. After 4 p.m., April 24, when the index reached 39, the plant was put back in full operation.

Mr. Pearsell said the hour-by-hour checks and reports did not keep him from getting "a few cat naps" during his 34-hour stint.

He described the hourly procedure in situations of this nature:

"I phone the computer room operator about 10 minutes after the hour. The figures—wind direction averages, the sulphur dioxide and particulate averages are sent to the computer room but they are not printed out as indexes until about 10 minutes later. So I phone then to get the latest information," he said.

"If it wasn't quite so urgent, I would give instructions that if this happened—say the sulphur dioxide levels rose sharply and I would define that—or the air pollution index rose above a certain figure, they would call me."

It's rare that an environmental officer gets as busy as he was with Falconbridge, he said, "I could have this duty for a week with nothing major happening."

Fibreglas finishes program

Fibreglas Canada Limited in Guelph successfully completed a \$1,500,000 air pollution abatement program in March.

The company received approval for the program from the Ministry of the Environment in July, 1973. Under this, all six glass-melting furnaces have been converted to use a batch formulation without fluorides or boron. "These changes were completed in February and tests indicate fluoride and boron emission problems have been corrected," said Environment Minister Wil-

liam Newman.

In April 1972, the company complied with the original Minister's Order and continued to experiment with glass-making batch formulations until discovering one that worked in the process and eliminated boron and fluoride emissions.

"Fibreglas Canada has been quite conscientious in correcting its air pollution problems, investing a lot of time and money in this," Mr. Newman stated. "For example, the wet scrubber system that eventually had to be abandoned cost \$500,000."

EcoLogic

Service

By WILLIAM G. NEWMAN
Minister of the Environment

What's ahead for the Ministry of the Environment?

I can't answer that question, but I can give you some of my thoughts on the direction in which I think we should move.

I have frequently said that the largest problem facing this Ministry is solid waste disposal. Many of you who are closer to it are aware that this is reaching a critical point and that action will have to be taken in concert with the municipalities throughout Ontario to help them solve this problem.

I have told many people that landfill operations are not the answer to our solid waste disposal problem. I firmly believe that this Ministry must search for alternatives that are acceptable to the public and also take into account the need to conserve our resources. And I classify solid waste, or garbage, as a resource that should be put to beneficial use.

The Ministry will be deeply involved in this area over the next 3 to 5 years because it must be approached on a Provincial-wide basis. Being close to Metropolitan Toronto, we hear more of the problems of solid waste disposal but other urban centres have the same problem perhaps on the same scale as Metropolitan Toronto.

Another area of concern on my list of priorities is the continued clean-up of the Great Lakes system. I think you will agree that it is frustrating that the Province of Ontario has taken some large strides on its part to clean up the Great Lakes, but it is impossible to take unilateral action and force a general clean-up. As you know, we must work through the Federal Government and the International Joint Commission, which takes time. In the meantime the large U.S. cities bordering the Great Lakes and the shipping traffic through the Great Lakes continue to foul the water and we are powerless to stop this. I just hope that the U.S. federal officials realize how large a problem this is and get on with their clean-up as fast as possible.

Another priority is the provision of basic services, water and sewage, to our growing municipalities across Ontario. I believe that this Ministry and its predecessor, the Ontario Water Resources Commission, have done a magnificent job in this area but as the municipalities become hard pressed for financial support they will be turning more and more to us for help in these areas. This may create some problems for the Ministry but I think the background and the expertise built up over the years will help us to solve most, if not all, of them.

I think that we have done extremely well in cleaning up air pollution but I also feel there are some pockets where we can continue to pressure for clean-up activities. When I see the figures on the reduction in air pollution in Metropolitan Toronto in the past 5 years I can imagine the hard work and perseverance that went into making this happen. I could go on with other matters of perhaps lesser significance but I would like to discuss two other points that are very important to me.

I think all of us in the Ministry must realize that the public will continue to scrutinize our activities closely. Every action and reaction of this Ministry will be brought under microscopic observation. I do not say this is wrong. In fact, I think that it makes a more responsive Ministry and keeps us abreast of public feeling.

Secondly, I would like to emphasize that we are serving the residents of Ontario. In this sense, I compare the Ministry to a large service industry and we must treat the citizens of Ontario with co-operation as a service industry in the private sector treats its customers. In other words, we cannot be self-serving; we cannot live for ourselves. We must always keep the citizens of Ontario in mind in every action we take, from answering telephones to the larger decisions that may involve millions of dollars.

In this regard I think that the new regionalization of the Ministry will go a long way to bring us closer to the citizens of Ontario and create a friendlier feeling between this Ministry and the public.



Ministry
of the
Environment

Hon William G. Newman,
Minister
Everett Boggs,
Deputy Minister

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ENVIRONMENTAL STUDIES:

Using a Secchi disc

By David Allen
Educational Resources
Co-ordinator

As part of a task force approach to problems of pollution in recreational lakes, the Ministry of the Environment is continuing to study lake-wide water quality with respect to bacterial contamination and nutrient enrichment.

During the months of May and June, students and teachers should take the opportunity to get out and examine closely the water quality problems in relation to our recreational lakes.

While a complete water quality examination will not be possible due to limitations on time, equipment and accessibility, a number of lake properties can be analyzed. Particularly well suited for

student studies are measurements of the physical and chemical properties of the water. One of the most important parameters used to obtain a definition of water quality is an assessment of water clarity. The Secchi disc is a simple device which measures the transparency of water. The disc can be constructed quite easily by students using a 20 cm. diameter metal plate and painted in alternate white and black quadrants. The disc should be fitted with an eye-bolt and attached to a calibrated rope. The disc is designed to be lowered into the water on the line with the black and white side facing up.

Secchi disc measurements are taken by lowering the disc into the water on the shaded side of the boat. The observer

should lean over the side of the boat so that his eyes are directly over the disc as it is lowered. When the disc disappears the depth is measured. The disc is then raised slowly until the black and white segments are just visible. The second reading is then taken. The point halfway between these two readings is the Secchi disc depth.

The significance of the reading is related to light penetration. A depth of twice the Secchi disc reading is the extent of light penetration in a particular body of water. This is the illuminated region, that extends vertically from the water surface to the level at which photosynthesis fails to occur owing to ineffective light penetration. From this jumping off point, the study can then progress to oxygen production as a result of photosynthesis and the relationship of oxygen levels to various types of fish. For further information and assistance on the development of a field trip to examine such indicators contact the Educational Resources Coordinator, Information Services Branch, Ontario Ministry of the Environment, 135 St. Clair Avenue, West, Toronto, M4V 1P5.

The garbage grabbers risk prosecution in court

Groups picking up papers in municipal recycling programs may be guilty of theft. At least that's what some solicitors say.

Apparently, paper put out with the garbage can quite possibly be defined as a type of municipal revenue.

However, the onus would be on the municipality to prove that they could have made a profit on the paper refuse.

The rapid rise in price of recycled paper from \$7 a ton last year to \$50 a ton this year, accounts for the race for discarded papers.

A student cares

Trudy Trivers, 14, is a grade eight student at Iron Bridge Public School near Blind River. Interested in the environment and recycling in particular, Trudy wrote this essay as part of a "Project Canada" assignment. The project, sponsored by the federal Department of Education in co-operation with the Ontario Ministry of Education, is designed to acquaint Canadian school children with life in other provinces.

We Can Do More Together.

Every self-respecting person in this world is proud of his country; his province; his town. I am one of those people. There are many other countries which I admire, but I am a Canadian through and through. And inside that Canadianism, I am a citizen of Ontario. Ontario belongs to me, and I belong to Ontario, and I want to love and make the most of my province for as long as I live.

When I think of Ontario, very seldom do I see cities bustling with automobiles and people. Instead, I see a forest. It is a clean, quiet, contented forest where humans are not part of the picture. It is a huge garden of trees and flowers, chirping birds, clear bubbling brooks, small scampering animals.

Your tread is muffled by centuries-old accumulations of fallen pine needles, and soft green moss.

The cool breeze wafts before it the sweet scent of pine, spruce and balsam, and many wood-flowers. Lady's slippers and wild orchids nod in friendship as we pass, and at times we may come upon the elegant perfection of a trillium, spreading its pure white petals for all the world to see.

All this we experience when we walk in an Ontario forest. But, if we are following any kind of road, there is one more thing we are certain to notice: A big, ugly, stinking garbage heap. It shatters your dreamy mood. It makes you want to turn away and cry.

In the society we live in, there is no avoiding garbage. Everyone has it, and wants to get rid of it, but there must be a better solution than what we have.

In the first place, we could reduce the amount we throw away. The messiest thing—about our garbage is food waste. A mother cooks a large meal for her family, it isn't all eaten, so she throws the rest out. Surely you can get to know how much your family is likely to eat, and cook accordingly. If there is some left over, put it in the refrigerator and save it for the next meal. Most foods are just as good on the second round. You'll also find that this will help your budget.

Still there are some food wastes that you can't eat, but neither can you send them down the drain, like egg shells and orange peels. This can be put on your garden. If you

don't want to grow vegetables, plant a small flower garden. These natural wastes decompose and are very good for the soil.

If you live in a large apartment building, it may be difficult to have your own garden. Well, then you can talk it over with your friends. If enough of you are interested, you can probably make some kind of arrangement with the building proprietors, to separate food wastes and have them mixed with the soil on the building's property. You never know what you can do until you've tried.

Still we are faced with wastes in the form of paper, plastics, glass and metal. We could just let the garbage man pick them up and take them to the city dump. Or, we could do a little more to help our environment.

Many of these things are now being recycled. We can help in pollution control this way. Get in touch with your local branch of the Ministry of the Environment. They can give you information on supporting their cause. Why not make a neighborhood project of it? Even rural communities can participate. Take your garbage to a recycling plant—don't throw it in the bush.

One more thing. Trash looks its worst when it's scattered all over the ground. We have garbage cans—let's use them.

Together we can do great things for our province, but the key word is 'caring'.